

Re: Need some help with animation

Source: <http://coding.derkeiler.com/Archive/Java/comp.lang.java.gui/2003-11/0634.html>

From: ak (k.andrei_at_gmx.de.spam)

Date: 11/26/03

Date: Wed, 26 Nov 2003 19:54:36 +0100

"Rhino" <rhino1@NOSPAM.sympatico.ca> schrieb im Newsbeitrag
news:fd2xb.13868\$dt2.1004213@news20.bellglobal.com...

>

> "ak" <k.andrei@gmx.de.spam> wrote in message
news:bq2364\$12j\$1@online.de...

>> *You have some mistakes here.*

>>

>> *a) you load only FIRST frame from your GIF, try to use ImageIO to get
all*

> *of*

>> *them*

>

> *Not really. You are right that I am loading only only file but that file
is*

> *an animated GIF (GIF89a) so it contains all the frames.*

Yes, file contains all frames, but java picks only the first of them.

>

>> *b) use MemoryImageSource to create animation. See javadoc for details.*

>>

> *I'll have a look at this.*

>

> *Thanks!*

>

> *Rhino*

>>

>>

>> "Rhino" <rhino1@NOSPAM.sympatico.ca> schrieb im Newsbeitrag
>> news:0iQwb.12685\$dt2.786959@news20.bellglobal.com...

>>> *I need some help with animation.*

>>>

>>> *Specifically, I am trying to create a class that will play an animated
> GIF*

>>> *(GIF89a) in a JPanel and stop or start when the user clicks the mouse.*

>> *This*

>>> *seems like something that should be pretty straight forward but I've*

> > *already*
> > > *put several hours into this without getting the results I want.*
> > >
> > > *My class *almost* works satisfactorily. The animation starts and stops*
> > *when*
> > > *I click (actually, I do two clicks to start it the very first time,*
> *after*
> > > *that the mouse toggles the animation with each click.) Unfortunately,*
> *the*
> > > *animation also disappears whenever it is not running. That's the part*
I
> > *need*
> > > *help with.*
> > >
> > > *I would like the animated GIF to be visible and initially stopped on*
the
> > > *first frame when it is started the first time, then start when I've*
> > *clicked*
> > > *the mouse (twice if it's the very first time since the panel was*
> > > *instantiated). The animation should stop but leave its current frame*
> > *visible*
> > > *when I click the mouse again, then restart from where it left off on*
the
> > > *next click.*
> > >
> > > *I've tried everything I can think of and researched the issue as*
> > *thoroughly*
> > > *as I could in Usenet but I can't find an example that does this or any*
> > > *discussion of the relevant principles so that I can figure it out for*
> > > *myself.*
> > >
> > > *Here is my code with most of the comments removed so that the post is*
> *not*
> > > *overly long. Please feel free to tell me to do things differently.*
> > > *Personally, I find the logic in the paintComponent() method a little*
> > > *odd-looking but I can't think of anything else to try there that*
hasn't
> > > *already failed to work.*
> > >
> > > *package racer;*
> > >
> > > *import java.awt.BorderLayout;*
> > >
> > > *import java.awt.Dimension;*
> > >
> > > *import java.awt.Graphics;*
> > >
> > > *import java.awt.Image;*
> > >
> > > *import java.awt.MediaTracker;*
> > >

```
> > > import java.awt.Toolkit;
> > >
> > > import java.awt.event.MouseAdapter;
> > >
> > > import java.awt.event.MouseEvent;
> > >
> > > import java.io.File;
> > >
> > > import java.net.URL;
> > >
> > > import javax.swing.JFrame;
> > >
> > > import javax.swing.JPanel;
> > >
> > > public class AnimationPanel extends JPanel implements Runnable {
> > >
> > > final String CLASS_NAME = getClass().getName();
> > >
> > > static final boolean DEBUG = false;
> > >
> > > Thread animationThread = null;
> > >
> > > boolean keepDrawing;
> > >
> > > boolean frozen = false;
> > >
> > > Image animation = null;
> > >
> > > MediaTracker tracker = null;
> > >
> > > int stillWidth = 0;
> > >
> > > int stillHeight = 0;
> > >
> > >
> > >
> > >
> > > public static void main(String[] args) {
> > >
> > >
> > >
> > > JFrame myFrame = new JFrame("Drawing Panel");
> > >
> > > myFrame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
> > >
> > > AnimationPanel drawingPanel = new
> AnimationPanel("racer/AnimatedGIFs",
> > > "catwalk.gif", true);
> > >
> > >
> > > myFrame.getContentPane().add(drawingPanel, BorderLayout.CENTER);
> > >
```

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```
>>> myFrame.pack();
>>>
>>> myFrame.setVisible(true);
>>>
>>> }
>>>
>>>
>>>
>>>
>>> public AnimationPanel(String animationImagePath, String
>>> animationImageFile, boolean controlWithMouse) {
>>>
>>>
>>>
>>> super();
>>>
>>>
>>> /* Get the URL for the animated image file. */
>>>
>>> URL animationGIF =
>>> this.getClass().getClassLoader().getResource(animationImagePath +
>>> File.separator + animationImageFile);
>>>
>>> /* Get the actual image file. */
>>>
>>> animation = Toolkit.getDefaultToolkit().getImage(animationGIF);
>>>
>>> try {
>>>
>>> tracker = new MediaTracker(this);
>>>
>>> tracker.addImage(animation, 0);
>>>
>>> tracker.waitForAll();
>>>
>>> }
>>> catch (Exception excp) {
>>>
>>> excp.printStackTrace();
>>>
>>> }
>>>
>>>
>>> /* Assuming that all of the stills in the animation are the same size,
>>> determine the
>>>
>>> height and width of the panel that will be needed to display them. */
>>>
>>> stillWidth = animation.getWidth(this);
>>>
>>> stillHeight = animation.getHeight(this);
```

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```
>>>
>>> /* If the user wishes to control the animation with the mouse,
activate
>> this
>>> listener. */
>>>
>>> if (controlWithMouse) {
>>>
>>> addMouseListener(new MouseAdapter() {
>>>
>>> public void mousePressed(MouseEvent evt) {
>>>
>>> if (frozen) {
>>>
>>> frozen = false;
>>>
>>> startAnimation();
>>>
>>> }
>>>
>>> else {
>>>
>>> frozen = true;
>>>
>>> stopAnimation();
>>>
>>> }
>>>
>>> }
>>> });
>>> } //end if
>>>
>>> } //end AnimationPanel()
>>>
>>>
>>>
>>> public void startAnimation() {
>>>
>>>
>>> if (animationThread == null) {
>>>
>>> animationThread = new Thread(this);
>>>
>>> keepDrawing = true;
>>>
>>> animationThread.start();
>>>
>>> }
```

```
>>>
>>> } //end startAnim()
>>>
>>>
>>>
>>> public void stopAnimation() {
>>>
>>>
>>> if (animationThread != null) {
>>>
>>> keepDrawing = false;
>>>
>>> animationThread = null;
>>>
>>> }
>>> } //end stopAnim()
>>>
>>>
>>>
>>> public void run() {
>>>
>>>
>>> while (keepDrawing) {
>>>
>>> repaint(); //call paint
>>>
>>> try {
>>>
>>> Thread.sleep(10); //sleep a little to slow it down
>>>
>>> }
>>>
>>> catch (InterruptedException ie_excp) {
>>>
>>> System.err.println("Error: " + ie_excp);
>>>
>>> }
>>>
>>> } //end while
>>>
>>> } // end run()
>>>
>>>
>>>
>>> public void paintComponent(Graphics graphics) {
>>>
>>>
>>> if (!keepDrawing) {
>>>
>>> /* If we DON'T paint the parent class (super), other parts of the GUI
```

```
> > which
> > > imbed this
> > >
> > > * panel overwrite the area where the animation is drawn. If we DO
paint
> > the
> > > parent
> > >
> > > * class, the animation is blanked out so it disappears when the
animation
> > is
> > > stopped
> > >
> > > * rather than freezing on the last frame.
> > >
> > > */
> > >
> > > super.paintComponent(graphics);
> > >
> > > return;
> > >
> > > }
> > >
> > > else {
> > >
> > > super.paintComponent(graphics);
> > >
> > > graphics.drawImage(animation, 0, 0, this);
> > >
> > > }
> > >
> > > } //end paint()
> > >
> > >
> > >
> > > public Dimension getPreferredSize() {
> > >
> > >
> > > return new Dimension(stillWidth, stillHeight);
> > >
> > > }
> > >
> > > } //end of class
> > >
> > >
> > > --
> > >
> > > Rhino
> > > ---
> > > rhino1 AT sympatico DOT ca
> > > "If you want the best seat in the house, you'll have to move the cat."
```

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> > >
> > >
> >
> >
>
>